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WHAT IS CLAIMED IS:

- 1. An antibody which binds to ErbB3 protein and reduces heregulin-induced formation of an ErbB2-ErbB3 protein complex in a cell which expresses ErbB2 and ErbB3.
- The antibody of claim 1 which further increases the binding affinity of heregulin for ErbB3 protein.
- 3. The antibody of claim 1 which further reduces heregulin-induced ErbB2 activation in the cell.
 - 4. The antibody of claim 1 which is a monoclonal antibody.
 - 5. The antibody of claim 1 which is humanized.
 - 6. The antibody of claim 1 which is human.
 - 7. The antibody of claim 1 which is an antibody fragment.
- 20 8. The antibody fragment of claim 8 which is a Fab.
 - 9. The antibody of claim 1 which is labelled.
 - 10. The antibody of claim 1 which is immobilized on a solid phase.
 - An antibody which binds to ErbB3 protein and increases the binding affinity of heregulin for ErbB3 protein.
- 12. An antibody which binds to ErbB3 protein and reduces heregulin-induced ErbB2 activation in a cell which expresses ErbB2 and ErbB3.

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- 13. An antibody which binds to ErbB3 protein and reduces heregulin binding thereto.
- 14. The antibody of claim 13 which further reduces heregulin-induced ErbB2 activation in a cell which expresses ErbB2 and ErbB3.
- 5 15. The antibody of claim 1 which binds to the epitope bound by the 8B8 antibody.
 - 16. The antibody of claim 1 which has the complementarity determining regions of the 8B8 antibody.
- 10 17. A composition comprising the antibody of claim 1 and a pharmaceutically acceptable carrier.
 - 18. A cell line which produces the antibody of claim 1.
 - 19. The cell line of claim 18 which is a hybridoma cell line producing the 8B8 antibody.
 - 20. A method for determining the presence of ErbB3 protein comprising exposing a cell suspected of containing the ErbB3 protein to the antibody of claim 1 and determining binding of said antibody to the cell.
 - 21. A kit comprising the antibody of claim 1 and instructions for using the antibody to detect the ErbB3 protein.